

Q2 cont  
buccal cells (APF test) for the detection of RA specific autoantibodies. 412 human sera are tested: 153 disease controls (1), 47 sera from patients with early disease (less than 12 months of symptoms) (2) and 212 longstanding [RA] (2) and 212 longstanding RA sera (more than 4 years of symptoms) (3).

At page 10, please amend the paragraph spanning lines 17 - 26 to read:

In a more specific embodiment the present invention relates to peptides described above characterised in that they have one of the following primary amino acid structures: C-6aa

Q3  
8 AA - Cysteine - 2 AA - Citrulline - 3 AA - Cysteine - 2 AA (SEQ ID NO: 1) or Type I

5 AA - Cysteine - 2 AA - Citrulline - 3 AA - Cysteine - 2 AA (SEQ ID NO: 2) or

4 AA - Cysteine - 2 AA - Citrulline - 3 AA - Cysteine - 2 AA (SEQ ID NO: 3) or

8 AA - Cysteine - 2 AA - Citrulline - 1 AA - Cysteine - 4 AA (SEQ ID NO: 4) or Type II

6 AA - Cysteine - 2 AA - Citrulline - 1 AA - Cysteine - 4 AA (SEQ ID NO: 5) or

4 AA - Cysteine - 2 AA - Citrulline - 1 AA - Cysteine - 4 AA (SEQ ID NO: 6).

At page 12, please amend Table 1 to read:

Q4

Position	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
IGP1611 (SEQ ID NO: 7)	Q	D	T	I	H	G	H	P	C	S	X	X	G	H	R	C	G	Y
IGP1646 (SEQ ID NO: 8)	Q	D	T	I	H	G	H	P	C	S	S	X	G	H	R	C	G	Y
IGP1647 (SEQ ID NO: 9)	Q	D	T	I	H	G	H	P	C	S	X	X	G	H	Q	C	G	Y
IGP1648 (SEQ ID NO: 10)	Q	D	T	I	H	G	H	P	C	S	X	X	G	H	R	C	G	Q
IGP1649 (SEQ ID NO: 11)	Q	D	T	I	H	G	H	P	C	S	X	X	G	H	Q	C	G	Q
IGP1650 (SEQ ID NO: 12)	Q	D	T	I	H	G	H	P	C	S	X	X	G	C	R	P	G	Y
IGP1651 (SEQ ID NO: 13)					H	G	H	P	C	S	X	X	G	H	R	C	G	Y
IGP1676 (SEQ ID NO: 14)					H	G	H	P	C	S	X	X	G	C	R	P	G	Y
IGP1687 (SEQ ID NO: 15)					H	G	H	G	C	D	X	X	G	H	R	C	G	Q
IGP1684 (SEQ ID NO: 16)					H	G	H	G	C	D	S	X	G	H	R	C	G	Q
IGP1685 (SEQ ID NO: 17)	Q	D	T	I	V	G	W	G	C	D	S	X	G	C	R	P	G	Q
IGP1686 (SEQ ID NO: 18)					V	G	W	G	C	D	S	X	G	C	R	P	G	Q

I 6aa  
I 6aa  
I 6aa  
I 6aa  
I 6aa  
II 4aa  
I 6aa  
II 4aa  
I 6aa  
I 6aa  
II 4aa  
II 4aa

At page 14 spanning page 15, please amend the final paragraph to read:

Further analysis of the different peptide structures described above revealed additional specific interactions between residues, which are a prerequisite for immunoreaction of the designed peptides with autoantibodies present in sera from patients suffering from rheumatoid arthritis. This can be described as follows:

a) Type I peptides: Cys – six residues – Cys:

8 AA – Cysteine – 2 AA – Citrulline – 3 AA – Cysteine – 2 AA (SEQ ID NO: 1) or  
5 AA – Cysteine – 2 AA – Citrulline – 3 AA – Cysteine – 2 AA (SEQ ID NO: 2) or  
4 AA – Cysteine – 2 AA – Citrulline – 3 AA – Cysteine – 2 AA (SEQ ID NO: 3).

At page 17, lines 12 - 16, please amend the paragraph to read:

b) Type II peptides: Cys – four residues – Cys peptides:

8 AA – Cysteine – 2 AA – Citrulline – 1 AA – Cysteine – 4 AA (SEQ ID NO: 4) or  
6 AA – Cysteine – 2 AA – Citrulline – 1 AA – Cysteine – 4 AA (SEQ ID NO: 5) or  
4 AA – Cysteine – 2 AA – Citrulline – 1 AA – Cysteine – 4 AA (SEQ ID NO: 6).

At page 31 spanning page 32, please amend Table 4 to read:

IGP1611 (SEQ ID NO: 7)	Q	D	T	I	H	G	H	P	C	S	X	X	G	H	R	C	G	Y
IGP1646 (SEQ ID NO: 8)	Q	D	T	I	H	G	H	P	C	S	S	X	G	H	R	C	G	Y
IGP1647 (SEQ ID NO: 9)	Q	D	T	I	H	G	H	P	C	S	X	X	G	H	Q	C	G	Y
IGP1648 (SEQ ID NO: 10)	Q	D	T	I	H	G	H	P	C	S	X	X	G	H	R	C	G	Q
IGP1649 (SEQ ID NO: 11)	Q	D	T	I	H	G	H	P	C	S	X	X	G	H	Q	C	G	Q
IGP1650 (SEQ ID NO: 12)	Q	D	T	I	H	G	H	P	C	S	X	X	G	C	R	P	G	Y
IGP1651 (SEQ ID NO: 13)					H	G	H	P	C	S	X	X	G	H	R	C	G	Y
IGP1676 (SEQ ID NO: 14)					H	G	H	P	C	S	X	X	G	C	R	P	G	Y
IGP1687 (SEQ ID NO: 15)					H	G	H	G	C	D	X	X	G	H	R	C	G	Q
IGP1684 (SEQ ID NO: 16)					H	G	H	G	C	D	S	X	G	H	R	C	G	Q
IGP1685 (SEQ ID NO: 17)	Q	D	T	I	V	G	W	G	C	D	S	X	G	C	R	P	G	Q
IGP1686 (SEQ ID NO: 18)					V	G	W	G	C	D	S	X	G	C	R	P	G	Q